

JAN 17 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**In re United States Patent Application of:****Applicant:** Michael B. KORZENSKI, et al.**Serial No.:** 10/602,172**Date** June 24, 2003
Filed:**Title:** COMPOSITIONS AND METHODS FOR
HIGH-EFFICIENCY CLEANING OF
SEMICONDUCTOR WAFERS**Docket No.:** 020732-249.643
(7496)**Examiner:** WEBB, Gregory E.**Art Unit:** 1751**Conf. No.:** 9457**Customer No.:****24239****FACSIMILE TRANSMISSION CERTIFICATE****Mail Stop Issue Fee****Fax No. (571) 273-8300**

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Number of Pages (including cover)



Tristan A. Fuierer

January 17, 2006

Date

**SUBMISSION OF POWER OF ATTORNEY AND STATEMENT UNDER 37 CFR 3.73(b);
SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT AND REQUEST FOR
SUPPLEMENTAL NOTICE OF ALLOWABILITY IN U.S. PATENT APPLICATION NO.
10/602,172**

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This responds to the October 20, 2005 Notice of Allowance.

Power of Attorney and Statement Under 37 CFR 3.73(b)

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Applicants submit herewith the Power of Attorney and Statement under 37 CFR 3.73(b) that was previously submitted unofficially to Examiner Webb pursuant to Yogendra Gupta's (Examiner Webb's supervisor) instructions. Mr. Gupta further requested that applicants submit a copy of said Power of Attorney and Statement under 37 CFR 3.73(b) with the next official communication to the Office.

Supplemental Information Disclosure Statement

Applicants submit herewith a Supplemental Information Disclosure Statement, along with the required statement under 37 CFR 1.97(e) and the required fee under 37 CFR 1.17(p). The submitted reference, specifically U.S. Patent No. 6,309,425 in the name of Murphy, does not motivate, teach or suggest applicants' claimed invention for at least the following reasons.

Applicants' claim 1, recites:

"A composition for cleaning semiconductor wafers, wherein the composition includes supercritical fluid, at least one fluoro species, and an inhibitor that is effective to inhibit attack of the cleaning composition on low dielectric constant layer material, wherein said inhibitor comprises boric acid."

Murphy is devoid of any motivation, teaching or suggestion relating to the required inclusion of at least one fluoro species. Moreover, enzyme stabilizers such as boric acid (see, col. 6, lines 25-53) are optional in Murphy, along with a myriad of other components including, anti-redeposition agents, builders, chelators, fragrances, hydrotropes, bleaches, and fluorescers. There is no motivation, teaching or suggestion in Murphy that boric acid should be the preferred optional ingredient much less its effectiveness at inhibiting attack of low dielectric constant material.

Applicants' claim 28 recites:

"A composition for cleaning semiconductor wafers, wherein the composition includes supercritical fluid, at least one primary and/or secondary amine(s), and at least one surfactant, wherein the primary and/or secondary amine(s) include at least one amine species selected from the group consisting of hydroxylamine (NH₂OH), ammonia (NH₃), alkylamines (R-NH₂) and dialkylamines (R₁R₂NH), wherein R, R₁ and R₂ are each independently selected from C₁-C₆ alkyl and C₆ aryl."

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Importantly, Murphy relates to a stain removal composition using a solvent that is (a) a gas at standard temperature and pressure, (b) a biodegradable functionalized hydrocarbon, OR (c) a silicone comprising solvent. Although Murphy does teach the use of gases in the supercritical state (solvent (a)), and amines (solvent (b)), the Murphy disclosure regarding the solvents is very clearly disjunctive, with no motivation or teaching that the Murphy solvents may be combined together (i.e., the gas at standard temperature and pressure AND the biodegradable functionalized hydrocarbon).

Request for a Supplemental Notice of Allowability

The Notice of Allowability accompanying the October 20, 2005 Notice of Allowance recites that claims 1, 3-8, 18-22, 26-28, 31, 37, 38, 44, 49, 51-56, 66-70, 74-76, 78, 79, 85, 86 and 92 were allowed but failed to address the allowability of pending claims 9-14, 23-25, 29, 32-36, 39, 40, 42, 43, 48-48, 57-62, 71-73, 77, 80-84, 87, 88, 90, 91 and 93-97. Importantly, pending claims 9-14, 23-25, 29, 32-36, 39, 40, 42, 43, 48-48, 57-62, 71-73, 77, 80-84, 87, 88, 90, 91 and 93-97 depend directly or indirectly from allowed claims, as summarized in the table hereinbelow.

claims	depend from
9-14	8
23-25	8
29	28
32-34	28
35, 36	29
39, 40	28
42, 43	29
45	1
46-48	45
57-62	56
71-73	56
77	76
80-82	76
83, 84	77
87, 88	76
90, 91	77
93	49
94-96	93
97	31

It is well established that claims that depend directly or indirectly from allowed subject matter are also allowable. Accordingly, applicants request the Examiner issue a Supplemental Notice of Allowability indicating the allowability of pending claims 9-14, 23-25, 29, 32-36, 39, 40, 42, 43, 48-48, 57-62, 71-73, 77, 80-84, 87, 88, 90, 91 and 93-97.


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If any additional issues remain, the Examiner is requested to contact the undersigned attorney at (919) 286-8090 to discuss same.

Respectfully submitted,

MOORE & VAN ALLEN PLLC

Date: January 17, 2006

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